



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/570,050	02/27/2006	Yiping Fan	US03 0282 US2	5345
65913 NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131	7590 10/15/2007		EXAMINER LE, DINH THANH	
			ART UNIT 2816	PAPER NUMBER
			NOTIFICATION DATE 10/15/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary

Application No.

10/570,050

Applicant(s)

FAN, YIPING

Examiner

DINH T. LE

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Art Unit: 2816

NON-FINAL REJECTION

The rejections under 35 USC 112, second paragraph, and over Sawada et al (US 6,693,501) are withdrawn in view of the amendments to the claims and the arguments presented in the amendment.

Claim Rejections

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-6 and 9-18 are rejected under 35 USC 102 (b) as being anticipated by Inagaki (US 5,256,997).

Inagaki discloses in Figures 1-8 a filter circuit comprising:

- at least two cascaded filters (31 and 32 in Figure 1, 131 and 132 in Figure 5 and 231 and 232 in Figure 6) of different orders and having passband ripples nearly equal in magnitude and out of phase with respect to each other in order to minimize a passband ripple of the composite filter, see Figures 3A-3F. As shown on Figures 5 and 6, the filter 132 has the order higher than the filter 131 or the filter 231 has the order higher than the filter (232);
- wherein the ripples in the at least two cascading filters (31, 32) are equal;
- wherein the at least one of the at least two cascading filters (31, 32) comprises an analog

Art Unit: 2816

filter;

- wherein the characteristic of the filter (32, 132 or 232) at least two cascading filters is selected to minimize the passband ripple in the composite filter;
- wherein the at least one characteristic inherently comprises the order of the at least two cascading filters (31, 32) because they are cascaded; and
- wherein the filter (131) has an odd order and the filter has even order.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 7-8 and 19-20 are further rejected under 35 USC 103 (a) as being unpatentable over Inagaki (US 5,256,997).

Inagawa discloses a filter circuit with all of the limitations of the claimed invention as stated above but does not disclose that at least one of the at least two cascading filters comprises a digital filter and claims 3 and 13 or the at least one filter is an even order filter and at least one filter is an odd order filter and the even order and the odd order differ in value by one as recited in claims 7-8 and 19-20. However, as well known in the art, the filter circuit comprises different types such as digital filter and analog filter and the order of the filter circuit can be selected to have a predetermined pass-band. Selecting the type and the orders for the filter for the circuit of Saw et al is considered to be a matter of a design expedient for an engineer depending on a

Art Unit: 2816

particular environment in which the circuit of Inagawa is to be used. Lacking of showing any criticality, it would have been obvious to a person having skill in the art at the time the invention was made to select the digital filter or the filter orders for the circuit of Inagawa as claimed for the purpose of provide a predetermined pass-band to accommodate with a requirement of a predetermined system.

Response to Applicant's Arguments


The applicant's arguments over Sawada et al (US 6,693,501) are moot without traverse.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DINH T. LE whose telephone number is (571) 272-1745. The examiner can normally be reached on Monday-Friday (8AM-7PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Richards, can be reached at (571) 272-1736.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR.


DINH T. LE
PRIMARY EXAMINER